Author index, Volume 24

Aikawa N → Shinoda K
Akaogi M → Kubo A
Amthauer G → Baum E
Amthauer G → Lottermoser W
Ando J, Irifune T, Takeshita T, Fujino K: Evaluation of the non-hydrostatic stress produced in a multi-anvil high pressure apparatus 139
Antonioli G → Quartieri S
Anzai Y → Sugimoto A
Armbruster T → Lottermoser W
Artioli G → Gualtieri A
Artioli G → Quartieri S
Augel R → Hugh-Jones D

Bagmut NN → Kalinichenko EA
Bass JD → Sinogeikin SV
Baum E, Treutmann W, Lottermoser W, Amthauer G: Magnetic properties of the clinopyroxenes aegirine and hedenbergite: a magnetic susceptibility study on single crystals 294
Baur WH → Stuckenschmidt E
Bender Koch C → Drodt M
Besson G → Muller F
Bieber A → Blanc P
Blanc P, Bieber A, Fritz B, Duplay J: A short range interaction model applied to illite/smectite mixed-layer minerals 574
Boisen MB Jr → Gibbs GV
Boisen MB Jr → Hill FC
Burnley PC → Phillips BL

Catlow CRA → Takada A
Catti M → Pavese A
Chatterjee ND → Fasshauer DW
Cheary RW, Coelho AA: A site occupancy analysis of zirconolite $CaZr_xTi_{3-x}O_7$ 447
Chopelas A → Hugh-Jones D
Christy AG → Welberry TR
Coelho AA → Cheary RW
Comodi P, Zanazzi PF: Pressure dependence of structural parameters of paragonite 274
Constable S, Roberts JJ: Simultaneous modeling of thermopower and electrical conduction in olivine 319

Dekhtyaruk NT → Kalinichenko EA
Dódony I: Structure of the 30-sectored polygonal serpentine. A model based on TEM and SAED studies 39
Dove MT, Keen DA, Hannon AC, Swainson IP: Direct measurement of the Si–O bond length and orientational disorder in the high-temperature phase of cristobalite 311
Downs RT → Yang H
Drits VA → Muller F
Drodt M, Trautwein AX, König I, Suess E, Bender Koch C: Mössbauer spectroscopic studies on the iron forms of deep-sea sediments 281
Duba AG → Poirier JP
Dubrovinsky LS, Saxena SK: Thermal Expansion of Periclase (MgO) and Tungsten (W) to Melting Temperatures 547
Dubrovinsky LS → Swamy V
Duplay J → Blanc P

Eremin NN → Urusov VS

Fasshauer DW, Chatterjee ND, Marler B: Synthesis, structure, thermodynamic properties, and stability relations of K-cymrite, $K[AlSi_3O_8] \cdot H_2O$ 455
Ferraris G → Pavese A
Finger LW → Yang H
Fisler DK, Mackwell SJ, Petsch S: Grain boundary diffusion in enstatite 264
Fleet ME, Henderson GS: Structure-composition relations and Raman spectroscopy of high-pressure sodium silicates 345
Flörke OW → Martin B
Forcher K → Lottermoser W
Fritz B → Blanc P
Fujino K → Ando J

Gall S → Rüscher CH
Gasparik T → Sinogeikin SV
Geiger CA → Quartieri S
Gibbs GV, Hill FC, Boisen MB Jr: The SiO bond and electron density distributions 167
Gibbs GV, Tamada O, Boisen MB Jr: Atomic and ionic radii: a comparison with radii derived from electron density distributions 432
Gibbs GV → Hill FC
Gillet P → Zhang J
Graetsch H, Ibel K: Small angle neutron scattering by opals 102
Grzechnik A → Leinenweber K
Gualtieri A, Norby P, Artioli G, Hanson J: Kinetics of formation of zeolite Na-A [LTA] from natural kaolinites 191
Guyot F → Zhang J
Guzzo PL, Iwasaki F, Iwasaki H: Al-related centers in relation to γ-irradiation. Response in natural quartz 254

Hannon AC → Dove MT
Hanson J → Gualtieri A
Hayward CL → Takada A
Hazen RM → Yang H
Hearne GR → Rozenberg GKh
Heinemann S, Sharp TG, Seifert F, Rubie DC: The cubic-tetragonal phase transition in the system majorite ($Mg_4Si_4O_{12}$) – pyrope ($Mg_3Al_2Si_3O_{12}$), and garnet symmetry in the Earth's transition zone 206
Henderson GS → Fleet ME
Hibberson WO → Liu L
Hill FC, Gibbs GV, Boisen MB Jr: Critical point properties of electron density distributions for oxide molecules containing first and second row cations 582
Hill FC → Gibbs GV
Hock R → Müller-Sommer M
Hofmeister AM: Infrared reflectance spectra of fayalite, and absorption data from assorted olivines, including pressure and isotope effects 535
Hofmeister W → Stuckenschmidt E
Horiuchi H → Tachi T
Huanosta Tera A → Pablo-Galán L de
Hugh-Jones D, Chopelas A, Augel R: Tetrahedral compression in $(Mg,Fe)SiO_3$ orthopyroxenes 301
Hull S → Pavese A

Ibel K → Graetsch H
Irifune T → Ando J
Irifune T → Yutani M
Ito Y → Yamagishi H
Iwasaki F → Guzzo PL
Iwasaki H → Guzzo PL

Joswig W → Stuckenschmidt E

Kainka E → Martin B
Kalinichenko AM → Kalinichenko EA
Kalinichenko EA, Litovchenko AS, Kalinichenko AM, Bagmut NN, Dekhtyaruk NT: The study of the kinetics and the mechanism of dehydroxylation in muscovite by ESR on Fe^{3+} 520
Kanzaki M → Kudoh Y
Keen DA → Dove MT
Kihara K → Muraoka Y
Kirfel A → Müller-Sommer M
König I → Drodt M
Kubo A, Suzuki T, Akaogi M: High pressure phase equilibria in the system $CaTiO_3$-$CaSiO_3$: stability of perovskite solid solutions 488
Kudoh Y, Nagase T, Sasaki S, Tanaka M, Kanzaki M: Phase F, a New Hydrous Magnesium Silicate Synthesized at 1000 °C and 17 GPa: Crystal Structure and Estimated Bulk Modulus 601
Kunz M → Lottermoser W
Kurosawa M, Yurimoto H, Sueno S: Patterns in the hydrogen and trace element compositions of mantle olivines 285

Langer K, Taran MN, Platonov AN: Compression moduli of Cr^{3+}-centered octahedra in a variety of oxygen-based rock-forming minerals 109, 384
Leinenweber K, Grzechnik A, Voorhees M, Navrotsky A, Yao A, McMillan PF: Structural variation in $Ca(Ti_xSi_{1-x})O_3$ perovskites (1>x>0.65) and the ordered phase Ca_2TiSiO_6 528
Lin C-C, Liu L-g: High pressure phase transformations in aragonite-type carbonates 149
Litovchenko AS → Kalinichenko EA
Liu L-g, Mernagh TP, Hibberson WO: Raman spectra of high-pressure

polymorphs of SiO_2 at various temperatures 396
Liu L- → Lin C-C
Liu L- → Mernagh TP
Lottermoser W, Forcher K, Amthauer G, Kunz M, Armbruster T: Site occupation and electric field gradient in acentric neptunite-measurements and evaluations concerning powder- and single crystal – Mössbauer spectroscopy and x-ray diffractometry 2
Lottermoser W → Baum E
Lottici PP → Quartieri S
Lourdes Chávez-García M de → Pablo-Galán L de

Mackwell SJ → Fisler DK
Maekawa H, Nakao T, Shimokawa S, Yokokawa T: Coordination of sodium ions in $NaAlO_2$-SiO_2 melts: a high temperature ^{23}Na NMR study 53
Manceau A → Muller F
Marcelli A → Mottana A
Marler B → Fasshauer DW
Martin B, Flörke OW, Kainka E, Wirth R: Electron irradiation damage in quartz, SiO_2 (Erratum) 75
Martinez I → Zhang J
Matsui M → Swamy V
McCammon CA → Rozenberg GKh
McMillan PF → Leinenweber K
Mernagh TP, Liu L-g: Temperature dependence of Raman spectra of the quartz- and rutile-types of GeO_2 7
Mernagh TP → Liu L-g
Meyer B, Scholz F: Redetermination of the transformation enthalpies of the xanthoconite – proustite, pyrostilpnite – pyrargyrite and trechmannite – smithite phase transitions 50
Miletich R, Zemann J, Nowak M: Reversible hydration in synthetic mixite, $BiCu_6(OH)_6(AsO_4)_3 \cdot nH_2O$ ($n \leq 3$): hydration kinetics and crystal chemistry 411
Moon AR → Stevens Kalceff MA
Mottana A, Murata T, Wu ZY, Marcelli A, Paris E: The local structure of Ca-Na pyroxenes. I. XANES study at the Na K-edge 500
Muller F, Besson G, Manceau A, Drits VA: Distribution of isomorphous cations within octahedral sheets in montmorillonite from Camp-Bertaux 159
Müller-Sommer M, Hock R, Kirfel A: Rietveld refinement study of the cation distribution in (Co, Mg)-olivine solid solution 17
Muraoka Y, Kihara K: The temperature dependence of the crystal structure of berlinite, a quartz-type form of $AlPO_4$ 243
Murata T → Mottana A

Nagasawa H → Tachi T
Nagase T → Kudoh Y
Nakao T → Maekawa H
Nakashima S → Yamagishi H
Navrotsky A: Progress and new directions in high temperature calorimetry revisited 222
Navrotsky A → Leinenweber K
Navrotsky A → Phillips BL
Nobe Y → Sugimoto A
Norby P → Gualtieri A
Nowak M → Miletich R

Ohtaka O, Tobe H, Yamanaka T: Phase equilibria for the Fe_2SiO_4–Fe_3O_4 system under high pressure 555
O'Neill B → Sinogeikin SV

Pablo-Galán L de, Lourdes Chávez-García M de, Huanosta Tera A: Electrical properties of opal-CT 90
Paris E → Mottana A
Pasternak MP → Rozenberg GKh
Pavese A, Catti M, Ferraris G, Hull S: P-V equation of state of portlandite, $Ca(OH)_2$, from powder neutron diffraction data 85
Petsch S → Fisler DK
Phillips BL, Burnley PC, Worminghaus K, Navrotsky A: ^{29}Si and ^{1}H NMR spectroscopy of high-pressure hydrous magnesium silicates 179
Phillips MR → Stevens Kalceff MA
Platonov AN → Langer K
Poe B, Seifert F, Sharp T, Wu Z: ELNES spectroscopy of mixed Si coordination minerals 477
Poirier JP, Duba AG: On power-law kinetics of transport phenomena in minerals 495
Price GD → Takada A

Quartieri S, Antonioli G, Artioli G, Geiger CA, Lottici PP: A temperature dependent X-ray Absorption Fine Structure study of dynamic X-site disorder in almandine: a comparison to diffraction data 200

Remy C → Reynard B
Reynard B, Remy C, Takir F: High-pressure Raman spectroscopic study of Mn_2GeO_4, Ca_2GeO_4, Ca_2SiO_4, and $CaMgGeO_4$ olivines 77
Roberts JJ → Constable S
Rozenberg GKh, Pasternak MP, Hearne GR, McCammon CA: High-pressure metallization and electronic-magnetic properties of hexagonal cubanite ($CuFe_2S_3$) 569
Rubie DC → Heinemann S
Rüscher CH, Gall S: Dielectric properties of iron-bearing trioctahedral phyllosilicates 365

Sasaki S → Kudoh Y
Saxena SK → Dubrovinsky LS
Saxena SK → Zhang J
Scholz F → Meyer B
Schulz H → Wittlinger J
Segawa Y → Sugimoto A
Seifert F → Heinemann S
Seifert F → Poe B
Sharp T → Poe B
Sharp TG → Heinemann S
Shimokawa S → Maekawa H
Shinoda K, Aikawa N: IR active orientation of OH bending mode in topaz 551
Sinogeikin SV, Bass JD, O'Neill B, Gasparik T: Elasticity of tetragonal end-member majorite and solid solutions in the system $Mg_4Si_4O_{12}$-$Mg_3Al_2Si_3O_{12}$ 115
Smallwood A → Stevens Kalceff MA
Stevens Kalceff MA, Phillips MR, Moon AR, Smallwood A: Cathodoluminescence microanalysis of natural hydrated amorphous SiO_2: opal 131
Stuckenschmidt E, Joswig W, Baur WH, Hofmeister W: Scolecite, Part I: Refinement of high-order data, separation of internal and external vibrational amplitudes from displacement parameters 403
Sueno S → Kurosawa M
Suess E → Drodt M
Sugimoto A, Nobe Y, Yamazaki T, Anzai Y, Yamagishi K, Segawa Y, Takei H: Spectroscopic properties of Cr-doped melilite crystals 326
Sugimoto A, Nobe Y, Yamazaki T, Yamaguchi Y, Yamagishi K, Segawa Y, Takei H: Spectroscopic properties of Cr-doped and Cr,Li-doped synthetic forsterite crystals 333
Suzuki T → Kubo A
Swainson IP → Dove MT
Swamy V, Dubrovinsky LS, Matsui M: High-temperature Raman spectroscopy and quasi-harmonic lattice dynamic simulation of diopside 440

Tachi T, Horiuchi H, Nagasawa H: Structure of Cu-bearing orthopyroxene, $Mg(Cu_{.56},Mg_{.44})Si_2O_6$, and behavior of Cu^{2+} in the orthopyroxene structure 463
Takada A, Catlow CRA, Price GD, Hayward CL: Periodic ab initio Hartree-Fock study of trigonal and orthorhombic phases of boric oxides 423
Takei H → Sugimoto A
Takeshita T → Ando J
Takir F → Reynard B
Tamada O → Gibbs GV
Tanaka M → Kudoh Y
Taran MN → Langer K
Tobe H → Ohtaka O
Trautwein AX → Drodt M
Treutmann W → Baum E

Urusov VS, Eremin NN: Charge – transfer energy in computer modeling of structure and peroperties of minerals 374

Voorhees M → Leinenweber K

Welberry TR, Christy AG: Defect distribution and the diffuse X-ray diffraction pattern of wüstite, $Fe_{1-x}O$ 24
Werner S → Wittlinger J
Wirth R: Water in minerals detectable by electron energy-loss spectroscopy EELS 561

Wirth R → Martin B
Wittlinger J, Werner S, Schulz H: On the amorphisation of $ZnCr_2S_4$ spinel under high pressure: x-ray diffraction studies 597
Worminghaus K → Phillips BL
Wu Z → Poe B
Wu ZY → Mottana A

Yagi T → Yutani M
Yamagishi H, Nakashima S, Ito Y: High temperature infrared spectra of hydrous microcrystalline quartz 66
Yamagishi K → Sugimoto A
Yamaguchi Y → Sugimoto A
Yamanaka T → Ohtaka O
Yamazaki T → Sugimoto A
Yang H, Hazen RM, Downs RT, Finger LW: Structural change associated with the incommensurate-normal phase transition in akermanite, $Ca_2MgSi_2O_7$, at high pressure 510
Yao A → Leinenweber K
Yokokawa T → Maekawa H
Yurimoto H → Kurosawa M
Yusa H → Yutani M
Yutani M, Yagi T, Yusa H, Irifune T: Compressibility of calcium ferrite-type $MgAl_2O_4$ 340

Zanazzi PF → Comodi P
Zemann J → Miletich R
Zhang J, Martinez I, Guyot F, Gillet P, Saxena SK: X-ray diffraction study of magnesite at high pressure and high temperature 122
Zheng Y-F: Prediction of high-temperature oxygen isotope fractionation factors between mantle minerals 356

Subject index, Volume 24

All mineral names occuring in titles, subtitles and abstracts are indexed Chemical formulae are according to M. Fleischer, Glossary of Mineral Species, 1983 (in some cases simplified) or as given by the author. The numbers refer to the title page.

A

Aegirine, $NaFe^{3+}Si_2O_5$
incommensurate-normal phase transition in – at high pressures 510
magnetic properties of single crystals 294
Agate,
cf. quartz, microcrystalline
Akermanite, $Ca_2MgSi_2O_7$
electronic absorption spectroscopy of chromium doped 326
Almandine, $Fe_3Al_2(SiO_4)_3$
dynamic X-site disorder in 200
Aragonite type,
carbonates, phase transition at high pressures 149
Atomic radii,
from electron density distributions 432

B

Berlinite, $AlPO_4$
temperature dependence of the crystal structure of 243
Boron oxide, B_2O_3
trigonal and orthorhombic, quantum mechanical ab inititio modelling of the structures of 423

C

Calcium ferrite-type,
-$MgAl_2O_4$, compressibility of 340
Calorimetry,
high-temperature reaction-, progress in 222
Cation distribution,
intracrystalline, in Ca-(Ti,Si) perovskites 528
intracrystalline, in (Co,Mg)-olivines 17
intracrystalline, in octahedral layers in monmorillonite 159
in zirconolite 447
Cerussite, $PbCO_3$
phase transformation at high pressure 149
Chalcaedony,
cf. quartz microcrystalline
Coesite, SiO_2
Raman spectra at various temperatures 396
Clustering,
of cations in octahedral layers in montmorillonite 159
Corundum, Al_2O_3
compressibility of Cr^{3+}-centered octahedra in 109
Compressibility,
of calcium ferrite-type $MgAl_2O_4$ 340
of Cr^{3+}-centered octahedra in corundum, kyanite, pyrope, spinel, uvarovite 109
of silicate tetrahedra in (Mg,Fe)-orthopyroxenes 301
tensorial of portlandite, from high pressure neutron diffraction 85
Creep,
power-law in 495
Cristobalite, SiO_2
Si-O bond lengths and orientational disorder in the high-temperature phase 311
Crystal field,
electric field gradient at iron sites in neptunite 2
of Cr^{3+} in corundum, kyanite, pyrope, spinel, uvarovite in dependence on pressure 109
of Cr^{3+} in doped forsterite 333
of Cu^{2+} in M2 sites of the orthopyroxene structure 463
Crystal structure,
intracrystalline cation distribution in (Co,Mg)-olivine solid solutions 17
refinement, by Rietveld methods, of (Co,Mg)-olivine solid solutions 17
refinement, by Rietveld methods, of zirconolite 447
of berlinite in dependence on temperature 243
of boron oxides, quantum mechanical modelling of 423
of Cu^{2+}-bearing orthopyroxen 463
of minerals with mixed Si coordination, ELNES spectroscopy 477
of mixite 411
of (Mg,Fe)-orthopyroxenes at high pressures 301
of paragonite at high pressures 274
of potassium-cymrite 455
of scolecite, refinement of high-order data in 403
of the 30-sectored polygonal serpentine 39
structure-composition relations of high-pressure sodium silicates 345
-variations and ordering in Ca-(Ti,Si)-perovskites 528
Cubanite, $CuFe_2S_3$
metallization at high pressure 569

D

Defects,
Al-bearing in natural quartz, relation of γ-irradiation to 264
distribution of, in wüstite 24
in opal 131
Diffusion,
grain boundary-, in enstatite 254
power-law in 495
Diopside, $CaMgSi_2O_8$
Raman spectra and quasi-harmonic lattice dynamic modelling 440

E

Earth,
mantle minerals, oxygen isotope fractionation between 356
mantle olivines, hydrogen in 385
transition zone, garnet symmetry in 206
upper mantle minerals, enstatite, grain boundary diffusion in 264
Elastic properties,
of end member majorite and solid solutions 115
Electrical properties,
dielectricity of trioctahedral iron-bearing phyllosilicates 365
electrical conductivity, power-law in 495
mechanism of electrical conductivity in olivine 319
of opal -CT by impedance spectroscopy 90
Electron density distribution,
atomic and ionic radii derived from 432
in oxide molecules of first and second row metals 580
silicon oxygen bond and 167
Electronic absorption spectroscopy,
of Cr- and Cr,Li-doped forsterite 333
of Cr-doped gehlenite 326
of octahedral Cr^{3+} in corundum, kyanite, pyrope, spinel, uvarovite in dependence on pressure 109
Electronic properties,
magnetic – and of hexagonal cubanite at high pressure 569
Electron diffraction,
selected-area electron diffraction on polygonal serpentine 39
Electron paramagnetic resonance (EPR),
of Fe^{3+} and dehydroxylation of muscovite 520
Electron spin resonance (ESR),
cf. electron paramagnetic resonance
Enstatite, $(Mg;Fe)_2Si_2O_6$,
grain boundary diffusion in 264
Energy minimization,
and modelling structure and properties of minerals, charge-transfer energy in 374

F

Fayalite, Fe_2SiO_4
infrared reflectance spectra of 535
Forsterite, Mg_2SiO_4
Cr- and Cr,Li-doped 333
infrared reflectance spectra of 535

G

Garnet group,
almandine 200
majorite 115, 206
pyrope 109, 206
uvarovite 109
Gehlenite, $Ca_2Al_2SiO_7$
electronic absorption spectroscopy of chromium doped 326

H

Hedenbergite, $CaFeSi_2O_6$
magnetic properties of single crystals 294

High pressure,
amorphitization of spinel type $ZnCr_2S_4$ at 597
electronic absorption spectroscopy of octahedral Cr^{3+} in corundum, kyanite, pyrope, spinel, uvarovite at 109
Fe_2SiO_4-Fe_3O_4 continous solid solution with spinel structure at 555
incommensurate-normal phase transition of akermanite at 510
compressibility of portlandite from Neutron diffraction at 85
metallization of cubanite at 569
multi-anvil apparatus for, evaluation of nonhydrostatic stress in 139
phase equilibria of $CaTiO_3$-$CaSiO_3$ perovskite solid solutions at 488
phase transformation of aragonite type carbonates at 149
Raman spectroscopy of olivine-type germanates and silicates at 77
response of silicate tetrahedra in (Mg,Fe)-orthopyroxenes to 301
structure refinements of paragonite at 274
X-ray diffraction of calcium ferrite-type $MgAl_2O_4$ at 340
Hydroxyl groups,
detection in minerals by electron energy-loss spectroscopy (EELS) 561
in hydrous microcrystalline quartz 66
in mantle olivines 385
in topaz, IR active bending mode, orientation of 551

I

Infrared absorption spectra (IR),
and cation distribution in octahedral layers in monmorillonite 159
hydrogen contents in mantle olivines from – and SIMS 385
of hydrous microcrystalline quartz 66
of hydroxyl bending modes in topaz, orientation of 551
of mixite 411
of olivine type silicates and germanates at various pressures 535
Infrared reflectance spectra,
of olivine type silicates and germanates 535
Ionic radii,
derived from electron density distribution 432
Isotope fractionation,
oxygen between minerals of the earth mantle 356

J

Jadeite, $NaAlSi_2O_6$
local structure of the Na site from XANES 500
Jahn-Teller effect,
of Cu^{2+} in orthopyroxen 463

K

Kaolinite, $Al_2Si_2O_5(OH)_4$
formation of zeolite Na-A from, kinetics of 191
Kinetics,
and mechanism of muscovite dehydroxylation 520
of formation of zeolite Na-A from kaolinite 191
of hydration/dehydration in mixite 411
of transport processes in minerals, power-laws in 495
Kyanite, Al_2SiO_5
compressibility of Cr^{3+}-centered octahedra in 109

L

Luminescence,
cathodoluminescence of opals 131

M

Magnesite, $MgCO_3$
p-V-T data from high pressure-high temperature X-ray diffraction 122
Magnetic properties,
electronic and –, of hexagonal cubanite at high pressure 569
of aegirine and hedenbergite single crystals 294
of microcrystalline iron-bearing minerals from deep sea sediments 281
Majorite, $Mg_3(MgSi)(SiO_4)_3$,
elastic properties of, and aluminous solid solutions 115
cubic-tetragonal phase transformation 206
Melts,
coordination of sodium ions in $NaAlO_2$-SiO_2- 53
Mixite, $BiCu_6(AsO_4)_3 \cdot 3\,H_2O$
hydration/dehydration kinetics of 411
Montmorillonite,
$(Na,Ca)_{0.3}(Al,Mg)_2Si_4O_{10}(OH)_2 \cdot nH_2O$
cation distribution in octahedral layers of 159
Mössbauer spectroscopy,
cf. Nuclear gamma ray resonance (NGR)
Modelling,
high-temperature Raman spectra of diopside and quasi-harmonic lattice dynamic- 440
of illite/smectite mixed-layering by short range interaction 574
simultaneous – of thermopower and electrical conductivity of olivine 319
structure and properties of minerals 374
Monticellite, $CaMgSiO_4$
infrared reflectance spectra 535
Muscovite,
$KAl_2(AlSi_3)O_{10}(OH)_2$
kinetics and mechanism of dehydroxylation 520

N

Neptunite,
$KNa_2Li(Fe^{2+},Mn^{2+})_2Ti_2Si_8O_{24}$
nuclear gamma ray resonance and x-ray diffraction, site occupation from 2
Neutron diffraction,
of portlandite and high pressures 85
Neutron scattering,
small angle, by opals 102
Nuclear gamma ray resonance (NGR)
iron in deep sea sediments 281
cubanite at high pressure, electronic-magnetic properties from 569
of neptunite, site occupation and electric field graduent in acentric measurements 2
Nuclear magnetic resonance,
of ^{23}Na in $NaAlO_2$-SiO_2 melts at high temperature 53
of ^{29}Si and ^{1}H in high pressure hydrous magnesium silicates 179

O

Olivine, $(Mg,Fe)_2SiO_4$
hydrogen and trace elements in mantle- 385
mechanism of electrical conductivity from simultaneous modelling of thermopower and electrical conductivity 319
Olivine type,
Co_2SiO_4 535
$(Co,Mg)_2SiO_4$ solid solutions 17
Ca_2GeO_4, $CaMgGeO_4$, Ca_2SiO_4, Mn_2GeO_4, Raman spectroscopy at high pressures 77
Mg_2GeO_4 535
–silicates and germanates, absorption data on 535
Omphacite,
local structure at Na site 500
Opal, $SiO_2 \cdot nH_2O$,
defects in – from cathodoluminescence 131
opal-CT, electrical properties from impedance spectroscopy 90
small angle neutron scattering by 102
Order/disorder,
in Ca-(Ti,Si) perovskites 528
orientational disorder and Si-O bond length in cristobalite 311

P

Paragonite,
$NaAl_2(AlSi_3)O_{10}(OH)_2$
pressure dependence of the structural parameters 274
Periclase, MgO
thermal expansion to melting temperature 547
Perovskite, $CaTiO_3$
solid solutions with $CaSiO_3$, high pressure phase equilibria 488
solid solutions with $CaSiO_3$, structural variations and ordering in 528
Phase transition
α-β- of berlinite 243
cubic-tetragonal in the system majorite-pyrope 206
incommensurate-normal in akermanite at high pressure 510
of aragonite-type carbonates at high pressure 149
pyrostilpnite-pyrargyrite, trechmannite-smithite, xanthoconite-proustite, enthalpy of 50
Phyllosilicate group,
biotite 365
kaolinite 191
illite/smectite mixed-layered minerals 574
montmorillonite 159
paragonite 274
vermiculite 365
Portlandite, $Ca(OH)_2$
p-V-equation of state 85
Potassium-cymrite, $KAlSi_3O_8 \cdot H_2O$
crystal structure and thermodynamic properties of 455
Proustite, Ag_3AsS_3 50
Pyrargyrite, Ag_3SbS_3 50
Pyrope, $Mg_3Al_2(SiO_4)_3$
compressibility of Cr^{3+}-centered octahedra in 109

-majorite system, cubic-tetragonal phase transformation in 206
Pyrostilpnite, Ag_3SbS_3 50
Pyroxene group,
aegirine 294
Cu^{2+}-bearing orthopyroxen, M2 site geometry 463
enstatite 264
hedenbergite 294
Na-Ca clinopyroxenes, local structure of Na site 500

Q

Quantum mechanics,
calculation of electron density distributions using SCF-HF wave functions 167
calculation of electron density distributions using SCF-HF wave functions, in oxide molecules of the first and second row metals 582
periodic ab initio Hartree-Fock study of boron oxides 423
Quartz, SiO_2,
Al-related centers in, in relation to γ-irradiation 254
electron irradiation damage in 75
microcrystalline, IR-study of hydrous, 66
Quartz-type GeO_2,
Raman spectra, temperature dependence of 7

R

Raman spectra,
and structural variation in Ca-(Ti,Si) perovskites 528
of diopside at high temperature 440
of high-pressure polymorphs of silica at various temperatures 396
of high-pressure sodium silicates 345
of olivine-type germanates and silicates at high pressure 77
of quartz- and rutile-type of GeO_2, temperature dependence of 7
Rutile-type GeO_2,
Raman spectra, temperature dependence of 7

S

Scolecite, $CaAl_2Si_3O_{10} \cdot 3\ H_2O$
internal and external vibrational amplitudes in the structure of 403
Secondary ion mass spectrometry,
determination of hydrogen in mantle olivines 385
Serpentine, $Mg_3Si_2O_5(OH)_4$,
polygonal, structure of 39
Smithite, $AgAsS_2$ 50
Sodium silicates,
high-pressure- 345
Solid solutions,
$CaTiO_3$-$CaSiO_3$ perovskite-, high pressure phase equilibria 488
(Co,Mg)-olivines, cation distribution in 17
Spinel, $MgAl_2O_4$
compressibility of Cr^{3+}-centered octahedra in 109
Spinel type,
Fe_2SiO_4 555
Fe_2SiO_4-Fe_3O_4 continous solid solutions at high pressures 555
$ZnCr_2S_4$, amorphitization at high pressure 597
Stishovite, SiO_2
Raman spectra at various temperature 396
Strontianite, $SrCO_3$
phase transformation at high pressure 149
Synthetic minerals
akermanite 326
almandine 200
berlinite 243
chondrodite (hydroxy-) 179
coesite 396
gehlenite 326
fayalite 535, 555
forsterite 333, 535
jadeite 500
magnetite 555
majorite 115, 206
mixite 411
perovskite 488
potassium-cymrite 455
pyrope 206
orthopyroxenes, (Mg,Fe)- 301
stishovite 396
tephroite 535
wadsleyite 179
System
Fe_2SiO_4-Fe_3O_4, phase equilibria at high pressures 555
majorite-pyrope, cubic-tetragonal phase transformation in 206
MgO-SiO_2-H_2O, hydrous and superhydrous phases, NMR of 179

T

Thermal expansion,
of periclase and tungsten to melting temperatures 547
Thermodynamic properties,
enthalpies of the phase transformations xanthoconite-proustite, pyrostilpnite-pyrargyrite, trechmannite-smithite 50
from high-temperature reaction calorimetry, progress in 222
of potassium-cymrite 455
p-V-T data on magnesite 122
relative, of illite/smectite mixed-layered minerals obtained using a short range interaction model 574
Topaz, $Al_2SiO_4(F,OH)_2$
orientation of the IR active bending mode in 551
Transmission electron microscopy,
of Ca-(Ti,Si) perovskites 528
of polygonal serpentine 39
Trechmannite, $AgAsS_2$ 50

U

Uvarovite, $Ca_3Cr_2(SiO_4)_3$
compressibility of Cr^{3+}-centered octahedra in 109

V

Vibrational spectroscopy,
cf. Infrared absorption (IR) and Raman spectra

W

Wadsleyite, β-Mg_2SiO_4,
^{29}Si-NMR in 179
Water,
detection in minerals by electron energy-loss spectroscopy (EELS) 561
in hydrous microcrystalline quartz 66
Witherite, $BaCO_3$
phase transformation at high pressure 149
Wüstite, $Fe_{1-x}O$,
defect distribution and the diffuse X-ray diffraction pattern 24

X

Xanthoconite, Ag_3AsS_3 50
X-ray absorption spectroscopy,
cation distribution in octahedral layers of montmorillonite (XANES) 159
detection of water contents of minerals (EELS) 561
dynamic X-site disorder in almandine (XANES) 200
local structure at Na site in Ca-Na clinopyroxenes (XANES) 500
mixed Si-coordination (ELNES) 477
X-ray diffraction,
detection of the amorphitization of spinel-type $ZnCr_2S_4$ at high pressure by 597
diffuse – and defect distribution in wüstite 24
of magnesite at high pressure and high temperature 122

Z

Zeolite
-Na-A, kinetics of formation of, from koalinite 191
Zirconolite, $CaZr_xTi_{3-x}O_7$,
cation distribution in 447

Indexed in *Current Contents*